

FACTORS RELATED TO DRUG ABUSE  
IN THE SUBMARINE SERVICE

IV. Correlates of Permissiveness of  
Attitudes Toward Drug Abuse

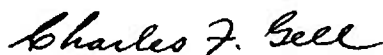
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## SUMMARY PAGE

### THE PROBLEM

To identify some of the major correlates of permissiveness of submariner attitudes toward drug abuse (DA).

### FINDINGS

Based upon the relationships with the APS (Attitude Permissiveness Score) data obtained from 58 enlisted submariner candidates, the results clearly indicated that young men who admit some experience with controlled drugs have more permissive attitudes toward D.A. Too, the high school dropouts tended to be more permissive, but his parents' education, the socio-economic level of his home situation, and his religious history were not correlated with attitudes toward D.A. Rather tenuous evidence appeared to argue: that men from smaller cities, those indicating some family history of psychiatric problems, those whose father had a professional occupation, the older men with more active duty in USN, the married, and those with less technical knowledge about drugs all tended to be less permissive concerning the whole D.A. question.

### APPLICATION

Suggestions for planning an effective drug education program for the submarine service were presented in this paper. In addition, the results of this study tended to support the possibility that the D.A.-prone submariner recruit might be effectively identified from the nature and intensity of his attitudes toward drug abuse as an issue.

### ADMINISTRATIVE INFORMATION

This investigation was conducted as part of Bureau of Medicine and Surgery Research Unit MF51.524.004-2009. The present report is Number 4 on this work unit. It was submitted for review on 1 March 1974, approved for publication on 23 July 1974 and designated as NavSubMedRschLab Report No. 788. The three previous reports in this series are NSMRL Reports 726, 737 and 764.

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## ABSTRACT

The overall purpose of this study was to identify some of the major correlates of permissive attitudes toward drug abuse (D.A.). The General Biographical Questionnaire (GBIQ), the General Drug Information Questionnaire (GDIQ), and the Drug Opinion Survey (DOS) administered to 58 Navy enlisted candidates for the Submarine Service provided the source data for the study. Based upon the relationship of the Attitude Permissiveness Score (derived from the DOS) to selected items from the GBIQ and the GDIQ, the major findings were: (1) Those with low GDIQ scores tended to be less permissive; (2) those who have tried or thought of trying drugs had more permissive attitudes; (3) high-school dropouts were more permissive, but parents' educational level had no relationship to attitudes; (4) stability of the man's home situation, the family composition and birth order similarly were unrelated; but, (5) there was some tendency for less permissive attitudes toward D.A. to be found in men whose family had some history of psychiatric illness. Suggestions for planning an effective drug education program for the Submarine Service as well as consideration of the possibility of using attitude information of this kind to identify D.A.-prone submariner recruits were discussed. The three experimental questionnaires with item frequency distributions for the GDIQ are included as an appendix.

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persistence of attitudes toward D.A. in a young male population such as found in the Submarine Service.

One prevailing assumption implicit in most drug education programs is that exposure to a wide range of drug-related information covering a multitude of disciplines, medical, psychological, sociological, religious, and legal is required before the cognitive\* components underpinning attitudes toward DA tend to stabilize.<sup>6</sup> Not only the content of drug education programs is considered relevant but also the methods by which the training procedures are implemented are considered important factors affecting attitude change. However, in a recent experiment, 9th and 11th graders were assigned randomly to one of 4 treatment groups: (1) model reinforcement counseling with a reformed DA case as a model; (2) reinforcement group sessions with a non-DA model; (3) group counseling with verbal reinforcement; and (4) a standard health unit approach.<sup>8</sup> Of the several findings reported in this study, two were important for the purpose of this paper, namely, that (1) there were no significant between-treatment differences and (2) that none of the group members showed any significant change in attitudes toward DA or in the frequency with which they used drugs subsequent to the experiment.

There are three studies in the submarine literature that are in one way or another related to the present study. First, based upon attitude data collected from the both crews of one SSBN, one

study<sup>9</sup> showed that during long submerged missions interpersonal attitudes and attitudes toward the Navy in general and toward the mission objectives of the SSBN program in particular were differentially affected depending upon the education, paygrade, length of time in the service, and marital status of the crewmen. Again involving SSBN crewmen, another study<sup>10</sup> demonstrated that the strength and content of attitudes toward the hazards of long-duration exposure to radiation during submerged missions depend upon a variety of factors including knowledge of radiation technology.

Finally, the present study is in some respects an outgrowth of one Submarine Medical Officer qualification thesis.<sup>11</sup> In planning and implementation of this study, the author obviously made the assumption that there was some systematic relationship between the level of knowledge the submariner had about drugs, drug effects and drug abuse and the strength and direction of his attitudes toward DA. Whereas this author succeeded in demonstrating certain findings, for example, that married submariners were less permissive in their attitudes toward marijuana usage than single men, the data did not lend itself to a definitive examination of the basic assumption, namely, that knowledge of drugs is correlated with permissiveness of attitudes toward drug usage.

As stated earlier, the primary objective of this study was to delineate some of the major factors accounting for individual differences in permissiveness of submariner's attitudes toward D.A. with a view toward

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\*Other components of attitudes are affective, emotional, and behavioral.

## FACTORS RELATED TO DRUG ABUSE IN THE SUBMARINE SERVICE

### IV. Correlates of Permissiveness of Attitudes Toward Drug Abuse

#### INTRODUCTION

There are some findings presently in the literature of drug abuse (D.A.) indicating that the incidence of D.A., Navy-wide, probably increased in the late sixties.<sup>1</sup> Similarly, within the Submarine Service, there is evidence that the incidence of D.A. increased subsequent to the issuance of Z-Gram 94 (July, 1971), an Instruction assuring the confessed drug user of non-punitive action and rehabilitation.<sup>2</sup> While admittedly sparse, the published data now suggest that the etiology of D.A. in the Submarine Service at least is associated, for the most part, with ineffective character traits,<sup>3</sup> with delinquency histories, poor performance in school, and interactional difficulties with teachers, law enforcement agents, and other persons in authoritarian roles.<sup>2,4</sup>

One common finding from the D.A. literature originating from all branches of the military services is that the personality differences within the D.A. groups themselves are both sizable and varied. For example, one U.S. Army researcher has proposed that D.A. cases from the Army be divided into three categories: severe character disorders, or borderline psychotics; antisocial personalities; and drug experimenters, --each with its own management guidelines.<sup>7</sup> Another proposed typological system is based upon the similarities and differences of the MMPI profiles of D.A. cases originating from

the Submarine Service and from the civilian sector. Thus, borrowing from the language of psychoanalysis, D.A. cases may be classified either as ego-syntonic, described as anti- or dysso-cial personalities but with little emotional distress or as ego-alien, cases which are presumably more responsive to treatment and are characterized by a high level of anxiety and depression.<sup>3</sup>

The resource cost in dollars and in the amount of professional and para-professional staff involvement in some one or another aspects of drug education in the Navy and elsewhere has probably accelerated many times faster than the incidence of D.A. over the past decade.\* Although drug education programs vary in terms of content and methodology, all apparently have one goal in common, namely, to enhance the negative or aversive attitudes\*\* toward the non-medical use of at least the more dangerous drugs. In this context therefore, the purpose of this paper becomes one of identifying some of the major factors contributing to, or etiological for the development and

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\*One CNO general message of April 1972 (Z-110, for example) provided for the establishment of a task force in the Bureau of Naval Personnel (PERS-PC) to focus exclusively upon human relations problems including DA within the Navy.

\*\*The term attitude is defined elsewhere<sup>5</sup> as a sharply "polarized" predisposition to respond favorably (positive) or toward an object or idea or to respond unfavorably (negatively) or away from the object to which the attitude is attached.

the item variance was maximized\* in the pretesting phase. The scoring key of correct responses was obtained from consensus judgments of several Medical Officers on the Laboratory staff.

The GDIQ total score indicating individual differences in general knowledge of drugs was calculated as the percentage of the 20 items (less those marked "don't know") which were checked correctly,

Drug Opinion Survey (DOS). Individual differences in attitudes toward drug abuse were assessed by a score obtained by combining the responses to selected items from the 16 experimental items included in the final version of the DOS (Appendix A). The basis for selecting the specific items included in the summed "permissiveness" score was the consensus opinions of several of the professional staff of the Laboratory as to which responses to specific items would be indicative of permissive attitudes toward D.A. Accordingly, the Attitude Permissiveness Score (APS) as it came to be called, for each enlisted submariner candidate included in the present sample was computed as follows: For each of the eight\*\* drugs listed in DOS item #8 toward which the respondent indicated a "favorable" attitude, a weight "1" was assigned, yielding a maximum score = 8. Similarly,

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\*For test item distributions involving dichotomous responses (correct/incorrect, for example) as found in most achievement tests, item variance becomes maximum as the proportions responding correct/incorrect approach 50/50.

\*\*STP was not included since almost all of the respondents indicated that they had not heard of this drug.

weight "1" was assigned to a "yes - absolutely" response to DOS #9 having to do with stated intention to use marijuana following its legalization. Weight "1" was also applied to all responses "no" to DOS item #11, "All illegal use of drugs is morally wrong". Further, the same weighing system was applied to a "Yes" response to item 12 (drug laws too restrictive), and to a "Yes" response to item 13 regarding the desirability of legalizing the use of marijuana. Thus the resultant summed score could vary from a zero to a maximum of 12 points, corresponding to an assumed continuum from nonpermissive to highly permissive attitudes toward drug abuse.

#### Method of Data Analysis.

As mentioned earlier, there were several trial administrations of a number of experimental test items during the process of developing the three questionnaires. Response distributions for each item were compiled, thereby providing an estimate of item variance. The hypothetical relationships between the permissiveness score and selected variables from the GBIQ and GDIQ were examined by means of contingency tables to which Chi-square was applied except in those cases in which the cell frequency was insufficient whereupon a t-test between proportions was used.\*\*\*

### RESULTS

#### Knowledge and Attitudes Related to D.A.

The first research question to be answered had to do with the amount of

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\*\*\*Calculated from tables found in reference 14.

identifying ways to improve the present D.A. educational programs in the Navy. At the same time, a secondary and possibly quite remote goal was to ascertain the feasibility of using patterns of attitudes toward D.A. as a means of identifying differences in proneness for D.A. of young recruits entering the submarine service. This possibility was based upon one focal concept of the cognitive dissonance theory<sup>12</sup>, namely, that the degree of cognitive dissonance (disparity between performance and attitudes) is directly related to the number and significance of the dissonant elements in a given life situation and is inversely proportional to the relevance of the consonant elements involved. In simplified language, the hypothetical proposition as applied to the submariner D.A. problem, becomes: The aversive motivation for D.A. will be directly related to the nature and strength of negative attitudes toward D.A. and indirectly related to the kind and intensity of positive attitudes toward D.A. This paper represents a necessary first step in implementing such a D.A. screening procedure\*, namely, the development of a measurement technique designed for the purpose of assessing individual differences in the permissiveness of attitudes toward drug abuse within the submariner population.

## METHOD AND PROCEDURE

### Development of the Experimental Questionnaires.

The process of objective questionnaire development always begins with

*\*The U.S. Navy has already published an experimental scale, the Drug Involvement Scale, which appears to have some value for classifying the differential severity of admitted D.A. cases. 13*

the compilation of a "pool" of experimental items whose content and structure are consistent with a set of preordained constraints based upon the theoretical considerations underpinning the study. The constraints in this study of necessity differed in certain respects for each of the three measurement devices.

General Biographical Information Questionnaire (GBIQ). Few researchers in the D.A. field would disagree with the general assumption that a person's present adjustment status is or may be related in complex ways to certain past behavior of the person. For example, the third paper of this series demonstrated the relationship of educational achievement as well as selected items of sociological, demographical and epidemiological information to the propensity for D.A. within the enlisted submarine population.<sup>2</sup> Modelled somewhat after a partially field-tested Submariner Biographical Inventory, the GBIQ consisted of 17 multiple choice items, most of which had been shown to be significantly related to individual differences in an achievement level in Basic Enlisted Submarine School<sup>15</sup> (see Appendix A).

General Drug Information Questionnaire (GDIQ). As with all tests of the achievement variety, the early developmental stages of the GDIQ involved several trial administrations of a number of experimental items to samples of the population of interest, to wit., the enlisted submariner group. The majority of the 20 items making up the final version of the GDIQ (Appendix A) was included on the basis that



TABLE II. Enlisted Submariner Candidates' Attitudes Toward Specific Drugs

Drug	Attitudes							
	Favorable		Neutral		Unfavorable		No Response	
	f	%	f	%	f	%	f	%
Marijuana	12	21	22	38	21	36	3	5
LSD	2	3	3	5	49	85	4	7
Mescaline	3	5	8	14	44	76	3	5
Amphetamines	1	2	6	10	47	81	4	7
Heroin	1	2	3	5	50	86	4	7
Morphine	1	2	5	9	48	82	4	7
Barbiturates	1	2	9	15	44	76	4	7

well-focussed drug education programs. Since most of the remainder of this paper deals in one way or another with the search for correlates of attitude permissiveness toward D.A., a point made in an earlier paper should be restated. It is this, that widespread use of a variety of the so-called psychotropic drugs, both legal and illegal, has become a socially accepted part of our cultural life style in the last 30 years.<sup>2</sup> As a result, the cognitive underpinning for attitudes toward drug use and abuse has become quite diffuse, thus contributing to an absence of clear-cut attitude polarity toward the issues involved. The data and the associated discussion to follow appear to bear out this general point of view.

#### Correlates of Permissiveness of Attitudes Toward D.A.

It was noted in the preceding section of this paper that knowledge of specific drugs and attitudes toward abusive

use of the same drugs may be interrelated. Whether this interrelationship tends to persist when more general attitudes toward the whole D.A. question, rather than toward a specific drug, are involved will be examined next. Based upon the scoring techniques described in the procedural section of this paper, distributions of GDI and Attitude Permissiveness Scores (APS) were obtained for the enlisted submarine student sample. Some statistics for these two distributions are presented in Table III.

With reference to the score distribution for the GDI, it is seen that individual differences are sizable, suggesting that the somewhat abridged item analysis applied in the construction of the questionnaire was quite effective. This fact is further borne out by the considerable spread in the item-by-item response distributions contained in Appendix A.

In contrast, the distribution for the APS (Attitude Permissiveness Scale)

general knowledge about the most popularized illicit drugs held by the enlisted submariner candidates included in the present sample. Obtained from the responses to item #1 in the DOS, frequency and percentage distributions are contained in Table I.

Item #8 on the DOS, using the same list of drugs, asked for responses indicative of attitude strength pertaining to the use of each substance. These item response distributions are presented in Table II.

TABLE I. Enlisted Submariner Candidates' Knowledge of Specific Drugs (N=58)

Drug	Extent of Knowledge					
	Never Heard of		Heard About (Know a Little)		Know a lot	
	f	%	f	%	f	%
Marijuana	—	—	33	57	25	43
LSD	—	—	46	79	12	21
Mescaline	5	9	45	77	8	14
STP	18	31	38	66	2	3
Amphetamines	7	12	44	76	7	12
Heroin	1	2	45	77	12	21
Opium	2	3	48	83	8	14
Morphine	3	5	46	79	9	16
Barbiturates	5	9	45	77	8	14

It is immediately seen that marijuana and LSD are quite familiar to submariner candidates as the combination of the response categories "know a little" and "know a lot" categories yielded 100%. In the same sense, all but one drug listed, viz., STP\* was checked by 88% or more of the enlisted sample.

*\*STP, sometimes labelled DOM, is a synthetic hallucinogenic substance chemically related to both amphetamine and mescaline. It apparently entered the drug scene in 1967. 16*

It is seen that marijuana, about which the submariners had the most knowledge, (Table I) also tended to evoke the most favorable attitudes (Table II). Also noteworthy is the fact that the drugs, LSD and heroin, with which the submariners indicated considerable familiarity in Table I, tended to elicit the most unfavorable attitudes. These examples of the complex interrelationships between knowledge about DA and attitudes toward the problem argue for the need for

TABLE III. Score Distributions for the General Drug Information Questionnaire and the Derived Attitude Permissiveness Scale

	Median	Mean	S.D.	Range	Comments
General Drug Information	58.5	60.4	18.4	12-90	Flat, multimodal
Attitude Permissiveness	1.1	1.9	2.2	0-12	Sharply skewed positively

scores is sharply skewed with markedly restricted variability. In terms of permissiveness of attitudes toward D.A., the shape of this distribution simply means that most submariners' attitudes are extremely non-permissive about D.A. with only a small minority tending, in various degrees, toward permissiveness of attitudes in this regard.

Knowledge of and Experience with Drugs. In order to examine the relationship between selected variables and the permissiveness of attitudes toward D.A., the APS distribution was dichotomized by arbitrarily labelling the segment of the sample obtaining scores of "0" or "1" (N=35) as the Non-Permissive group and the remainder, those obtaining scores ranging from 2 to 12 as Permissive (N=23). Accordingly, data bearing on the relationships of attitude permissiveness and general knowledge of, and experience with drugs are presented in crossbreak or contingency form in Table IV.

Looking first at the upper contingency table, it is seen that, although the dis-

proportionalities do not meet the confidence level of 5%\*, the proportion of the sample in the low drug knowledge (below median scores) that have non-permissive attitudes is almost double those with permissive attitudes. Quite tenuously therefore, this relationship suggests the possibility that general knowledge about D.A. may result in more permissive attitudes, a finding which is consistent with the knowledge/attitude relationship for one drug (marijuana) indicated above Tables I and II).

Since the questionnaire data were obtained anonymously from the 58 enlisted submariner candidates, responses to the question 3 and 4 on the DOS (Appendix A) asking whether the respondent had used or thought of using drugs in the past were assumed to be usefully valid. Accordingly, the lower two crossbreaks in Table IV indicate that men who either admit having tried drugs or thought of trying them tend to have more permissive attitudes toward

\*Hereafter n.s. (non-significant) means that the null hypothesis is tenable at a confidence level of 5% or greater.

TABLE IV. Relationship between Permissiveness of Attitudes toward Drug Use and Knowledge of and Experience with Drugs

GDI Scores					
	Attitudes	Below Median		Above Median	
		f	%	f	%
	Permissive	10	34	13	50
	Non-permissive	19	66	13	50
	With df=1, p of $X^2$ = n.s..				
Have you thought of trying [drugs] <sup>a</sup> ?		Yes		No	
		f	%	f	%
	Permissive	17	81	6	16
	Non-permissive	4	19	31	84
	With df=1, p of $X^2$ = <.01				
Have you ever tried [drugs] <sup>a</sup> ?		Yes		No	
		f	%	f	%
	Permissive	9	90	14	29
	Non-permissive	1	10	34	71
	With df=1, p of $X^2$ = <.01				

<sup>a</sup>These data were obtained from the responses to items 3 and 4 in the DOS (Appendix A). Yes-groups in the lower two crossbreaks included those men responding "Yes" to one or more of the drugs listed. No-groups included those responding "No" to every drug.

D.A. Also possibly noteworthy, is the fact that 21% of the present sample admitted experience with drugs (specific drug(s) not indicated). This compares to an estimate of 40-50% for similar age groups of civilians<sup>19</sup> and 46% for U.S. Army men on duty in West Germany.<sup>20</sup>

Educational Achievement and Time in Service. Is there a correlation between the years of formal education and attitudes toward D.A.? Further, does exposure to the so-called Navy "culture"

affect these attitudes? Data bearing on both of these questions are contained in Table V.

Although not specifically mentioned in the procedural section of this paper, the present sample (N=58) is obviously assumed to be representative of the 2-3 thousand enlisted submariner candidates entering Submarine School annually. Some confidence in this assumption is gained from the fact that the dichotomized distribution for educational achievement

TABLE V. Relationship of Education Achievement and Duration of Active Duty to Permissiveness of Attitudes Toward Drug Abuse

Attitudes	Education			
	Less than 12 <sup>a</sup>		12 years or more <sup>a</sup>	
	f	%	f	%
Permissive	8	66	15	30
Non-permissive	4	34	30	70
With df=1, p of $X^2 < .05$				
Attitudes	Active Duty Time			
	Less than 1 year		Greater than 1 year	
	f	%	f	%
Permissive	13	52	10	30
Non-permissive	12	48	23	70
With df=1, p of $X^2 = n.s.$				

<sup>a</sup>Twelve years' formal education equated to high school graduation.

(upper half of Table V) shows a 21% high school dropout rate which is roughly equivalent to the 23% rate reported for a sample of 257 Submarine School students drawn in the late sixties.<sup>15</sup>

Therefore, the data in the upper panel in Table V suggest that those enlisted volunteers for the submarine service who have 12 years or more of formal education tend to have less permissive attitudes toward D.A. This finding may be interpreted as consonant with the earlier reported result showing that high school graduates entering the Submarine service are much less likely to become disqualified for submarine duty by reason of D.A.<sup>2,4</sup> than are high school dropouts.

The answer to the second question stated above, namely, do attitudes toward D.A. change after joining the Navy? While not significant at the 5% level, the disproportionalities in the lower crossbreak in Table V tentatively suggest that attitudes toward D.A. may be modified in the direction of non-permissiveness as the man progresses through his first enlistment period.

Sociological, Epidemiological and Demographical Variables. One consistent finding in the now rather voluminous literature dealing with the origin and development of attitudes is that they are learned, for the most part, during the early developmental years.<sup>21,22</sup> Moreover, a plethora of sociological research has shown that the belief systems underpinning many attitudes are related in a complex manner to the socio-educational and socio-economic levels prevailing in the home environment.<sup>23</sup> A rather gross examination of the relationship between a submarine

candidate's attitudes toward D.A. and the educational achievement level of his parents is provided by the contingency tables in Table VI.

It is immediately evident that submarine student's attitudes toward D.A. are not systematically related to the status of the man's home situation as indicated by either of his parents educational achievement level. However, the breakdown of the educational achievement variable into above and below high school level is very gross. It may be that a third educational category, e.g., three or more years of college, in a more copious sample would have demonstrated some relationship to the D.A. attitudes as measured by the APS.

Whereas educational achievement level is a highly useful index of the socio-economic status of the home environment, there are several other indicators tending to provide additional information pertaining to the sociology of the home as it relates to attitude development. Table VII contains three of these factors.

Looking at the lower relationship first, it is obvious that parents' income as a socio-economic indicator, grossly segmented as it is in Table VII, has no relationship to attitudes toward D.A. Similarly, the middle and upper crossbreaks demonstrate no disproportionalities significant at the 5% level. However, the data in these two panels suggest the possibility that homes in which the father's occupation is professional or semi-professional and homes wherein the mother was not occupied outside may tend to engender more non-permissive attitudes toward D.A. These

TABLE VI. Relationship of Level of Parent's Education to the Permissiveness of their Son's Attitudes toward Drug Abuse

Attitudes	Father's Education <sup>a</sup>			
	Less than High School		High School or Above	
	f	%	f	%
Permissive	8	38	14	40
Non-permissive	13	62	21	60
With df=1, p of $X^2 = n.s.$				
Attitudes	Mother's Education			
	Less than High School		High School or above	
	f	%	f	%
Permissive	8	47	15	37
Non-permissive	9	53	26	63
With df=1, p of $X^2 = n.s.$				

<sup>a</sup>N=56 as the result of missing data from 2 men.

trends in the data, if more convincingly substantiated in larger samples, may be interpreted as supporting one finding in the D.A. literature namely, that the presence of stable parental models during the man's developmental years provides a deterrent factor for the formation of permissive attitudes toward D.A.<sup>2,24</sup>

Although trends in the data in Table VII appeared to support the role model

concept as an etiological factor in the formation of attitudes toward D.A. (above paragraph), a previous investigation failed to show a significant correlation between the marital status of the men's parents and the incidence of D.A. among submariners.<sup>2</sup> Table VIII provides data bearing on the question of the stability of the man's home situation as it relates to attitudes toward D.A.

While there is some tendency for the data in the upper crossbreak in Table

TABLE VII. Relationship of Parents' Occupation and Income to Enlisted Men's Attitudes toward Drug Abuse

Attitudes	Father's Occupation			
Permissive	Non-professional		Professional or Semi-professional	
	f	%	f	%
	19	42	2	20
Non-permissive	26	58	8	80
With $df=1$ , $p$ of $X^2 = n.s.$				
Attitudes	Mother Had Job Outside Home			
Permissive	Yes		No	
	f	%	f	%
	17	42	6	33
Non-permissive	23	58	12	67
With $df=1$ , $p$ of $X^2 = n.s.$				
Attitudes	Parents' Annual Income			
Permissive	10,000 or less		More than 10,000	
	f	%	f	%
	5	42	18	41
Non-permissive	7	58	26	59
With $df=1$ , $p$ of $X^2 = n.s.$				

VIII to suggest that men from broken families may develop more non-permissive attitudes toward D.A., the unacceptable confidence level argues for chance differences only. As implied in

the discussion above, the findings in the literature<sup>24</sup> would lead to the expectation of the opposite finding, that is, a significant ratio of permissive to non-permissive attitudes in children reared in



TABLE VIII. Relationship of the Stability of the Submarine Candidate's Home Situation to Attitudes Regarding Drug Abuse

Attitudes	Parents' Marital Status			
Permissive	Living Together		Divorced or Separated	
	f	%	f	%
	17	42	6	33
Non-permissive	23	58	12	67
With $df=1$ , $p$ of $X^2 = n.s.$				
Attitudes	Man's Rating of Home Situation			
Permissive	Good		Fair or Poor	
	f	%	f	%
	14	36	9	47
Non-permissive	25	64	10	53
With $df=1$ , $p$ of $X^2 = n.s.$				

disrupted family situations. Similarly, the proportionalities in the lower panel in Table VIII are opposite to the predicted direction; however, the differences were not sufficiently reliable to be accepted as a trend in the data.

A cursory review of the literature bearing on the etiological factors in D.A. has suggested that cultural conditions resulting in value degradation in developing youth may be a contributing factor for D.A. (Appendix to reference #4). Three variables which are related to social identification and value forma-

tion<sup>22</sup> are combined with the permissive and non-permissive attitude groups in Table IX.

In general, within the age range found in the present sample of enlisted submarine candidates, age does not appear to be significantly (in a statistical sense) related to attitudes toward D.A., though the disproportionalities in the upper crossbreak in Table IX suggest a trend toward the older men's being less permissive. Too, since more of the older men are married, the same trend toward less permissiveness of attitudes

TABLE IX. Relationship of Age, Religious Affiliation and Marital Status to Permissiveness of Attitudes Toward Drug Abuse

Attitudes	Age			
	18 or Less		19 or More	
Permissive	f	%	f	%
	6	55	17	36
Non-permissive	5	45	30	64
With $df=1$ , $p$ of $X^2 = n.s.$				
Attitudes	Religious Affiliation			
	Affiliated		Non-affiliated	
Permissive	f	%	f	%
	10	48	13	35
Non-permissive	11	52	24	65
With $df=1$ , $p$ of $X^2 = n.s.$				
Attitudes	Marital Status of Enlisted Sample			
	Never Married		Married or Divorced	
Permissive	f	%	f	%
	21	46	2	17
Non-permissive	25	54	10	83
With $df=1$ , $p$ of $X^2 = .07$				

toward D.A. is observed in those who were, or had been married as compared to those who had never been married (lower panel in Table IX). Finally, whether a man is affiliated with an

organized religious group does not appear to greatly affect the strength of his attitudes toward DA (middle panel in Table IX); though there is a slight trend for the non-affiliated to have more non-permissive attitudes.

Other sociological variables known to be related to value and attitude development have to do with population density and family size and composition.<sup>24</sup> Table X contains some data bearing on these relationships.

Obviously, the top crossbreak in Table X fails to suggest any relationship whatsoever between attitudes of young males toward D.A. and size of the family in which the siblings are predominantly male. However, in multiple-sibling families, wherein there are two or more sisters, there appears to be some slight tendency toward non-permissiveness of attitudes though the difference fails to meet the 5% criterion.

The sociological literature contains numerous examples of correlation between birth order and the presence or absence of a range of personality traits.<sup>25</sup> For example, firstborn children, at least in the USA, tend by and large to be more anxious and more dependent upon others than are later born (op. cit. p. 87). The contingency data in panel three in Table X, although again not significant at the 5% level, nonetheless suggest that firstborn males in multiple-sibling families may have more non-permissive attitudes toward D.A. than do later born children.

Finally, there is some evidence already in the literature of D.A. within the Submarine Service to indicate that D.A. cases are more likely to have spent their developmental years in large cities rather than in more sparsely populated areas.<sup>2</sup> Although not statistically reliable (5% level), the odds are twice as high that men from small cities will have non-permissive attitudes

toward D.A. than if they had come from cities over a 100,000 (lower crossbreak in Table X). This finding, if replicated in a more copious sample of submarine candidates, would seem to be consistent with the results reported in earlier D.A. studies<sup>2</sup>.

At least partial answers to two remaining questions regarding attitudes toward D.A. were sought. First, do young men with a history of protracted drug treatment for some health problem have different attitudes toward D.A. than those without such history? Secondly, do submarine candidates whose family has a history of psychiatric treatment of some kind have different attitudes toward D.A.? Originating from the responses to GBIQ items 16 and 17, contingency tables containing data bearing on these two questions are presented in Table XI.

Based only upon the 5% of the sample (N=3) with a history of a long illness, there is some possibility (not statistically significant at the 5% level) that persons with a history of drug therapy may be more permissive toward D.A. However, additional investigation of this finding with larger samples of enlisted men is necessary to establish the relationship.

While inconsistent with previously reported findings in the submarine literature,<sup>2</sup> the data in the lower panel in Table XI suggest that men whose developmental history included experience with familial psychiatric disability were more inclined to develop non-permissive attitudes toward illegal use of drugs. In passing, it might be recalled that an earlier NSMRL Report,<sup>2</sup> presented

TABLE X. Relationship of Birth Order, Number and Sex of Siblings, and Size of Hometown to Permissiveness of Attitudes Toward Drug Abuse

Attitudes	Number Brothers					
	None or One		Two or More			
	f	%	f	%		
Permissive	13	37	10	43		
Non-permissive	22	63	13	57		
With $df=1$ , $p$ of $X^2 = n.s.$						
Attitudes	Number Sisters					
	None or One		Two or More			
	f	%	f	%		
Permissive	15	45	8	32		
Non-permissive	18	55	17	68		
With $df=1$ , $p$ of $X^2 = n.s.$						
Attitudes	Birth Order					
	Firstborn		Only Child		Later Born	
	f	%	f	%	f	%
Permissive	7	35	2	40	14	42
Non-permissive	13	65	3	60	19	58
With $df=2$ , $p$ of $X^2 = n.s.$						
Attitudes	City Size					
	Less than 100,000			More than 100,000		
	f	%		f	%	
Permissive	16	36		7	50	
Non-permissive	28	64		7	50	
With $df=1$ , $p$ of $X^2 = n.s.$						

TABLE XI. History of Prolonged Drug Treatment and Psychiatric History of Family as Related to Attitudes Toward Drug Abuse

Attitudes	Long-Term Drug Treatment			
	Yes		No	
	f	%	f	%
Permissive	2	67	21	47
Non-permissive	1	33	24	53
Differences between proportions= n.s. (t-test) <sup>a</sup>				
Attitudes	Neuropsychiatric History of Family			
	Hospitalized History		No History	
	f	%	f	%
Permissive	0	—	23	46
Non-permissive	8	100	27	54
Percentage differences significant, 1% level, t-test <sup>a</sup>				

<sup>a</sup>T-test between proportions calculated from nomograph in reference #14.

rather substantive evidence that submariners with a history of D.A. while in the service were also more likely to have had some type of psychiatric difficulty themselves prior to their Naval enlistment. In sum, the degree of permissiveness of attitudes toward D.A. appears to be related to the man's own past adjustment history as well as to the psychiatric status of those surrounding him during his developmental years.

Finally, there is some untabled descriptive information regarding the

quantity and quality of drug information the average submarine candidate possesses (See GDIQ item distributions in Appendix A).<sup>\*</sup> Not surprisingly, three rather technical items drew the response "don't know", item 14 on LSD dosage (58% don't know), #8 on ranking of drug potency (34%) and #20 UCMJ

<sup>\*</sup>For the reader interested in the level of his own drug knowledge, the item distributions in the Appendix are aligned with the most correct response as adjudged by a consensus of a panel of Submarine Medical Officers on the staff of the Laboratory at the time this study was conducted.

sentence for marijuana charge (pre-Z-gram 94) (33%). Based upon percent wrong response, the five most difficult items had to do again with technical facts. In descending order of difficulty were #18 (cause of OD), #1 (drug classification), #19 (psychopharmacological effects of mescaline), #5 (definition of "Speed") and #7 (definition of drug tolerance). On the other hand, in terms of percent correct, the easiest five items in descending order were: Jargon for LSD "trip" (#16), effects of "mainlining" (#6), definition of addiction (#3), drug class of LSD (#13), and, unexpectedly 62% of the group identified the two most possible effects of LSD usage (#17).

## DISCUSSION

One assumption underpinning this study was that the major dynamics for the inappropriate use of drugs by submariners (or anyone else) are related in a systematic way to many of the environmental factors tending to induce and perpetuate permissive attitudes toward the entire question of DA. Thus the overall objective of this paper was to present data bearing on the question of the correlation between selected variables and the degree of attitude permissiveness of a sample of enlisted candidates for the Submarine Service. Further, two possible spinoffs of crucial importance during an AVF era were anticipated at the time this study was in its planning phase. First, if a technique for identifying those men with strong nonprohibitive or permissive attitudes toward drug abuse could be developed, recruitment of submarine candidates with minimal likelihood of evolving significant drug problems

might be a possibility. A second consequence of this study was that ways of improving the effectiveness of the various drug education programs presently being promulgated by the Submarine Service and the Armed Forces generally might result from disclosing some of the correlates of acquiescent attitudes toward D.A.

What have the results of this study contributed toward elucidating these broad issues? Prior to any discussion of these aspects of the DA problem, two general limitations of the study should be stated. First of all, the sample of enlisted candidates for the Submarine Service was, because of logistical constraints, rather small (N=58). In addition, although the method for calculating the APS (Attitude Permissiveness Score) had been "field-tested" on previous enlisted Navy samples, this test score, upon which the validity of most of the variable interrelationships presented in this study hinged, must be considered experimental in nature unless or until further validation data are available.

Notwithstanding these limitations, the results provided indications of trends in the data bearing in one way or another on the general issues. For example, the relationships depicted in Table IV clearly indicated that enlisted submarine candidates who either admitted experience with drugs or indicated that they had considered experimenting with them have more permissive attitudes toward D.A. as measured by the APS. To an extent, these findings are consistent with certain information now in the drug literature. For example, a survey of nine large high schools

indicated that showing of D.A. films failed to modify attitudes. "Students who have used drugs are not likely to be favorably impressed or to be changed by viewing....drug abuse films. In all nine schools the pattern was the same: the students, after viewing the films, said they were likely to continue their behavior as users or nonusers of drugs"<sup>26</sup> [cited in ref. #27 p. 133].

The relationship between drug knowledge as measured by the GDIQ (Appendix) and favorable attitudes toward D.A., while not reaching the 5% confidence level, nevertheless suggests that those with less drug information may also be less permissive (upper panel in Table IV). In contrast, a series of studies conducted at the Pennsylvania State University in 1970-71 "showed consistent relationships between better knowledge about drugs and pro-drug attitudes" [cited in reference #27 p. 134]. These equivocal findings raise one difficulty in interpreting the reported relationships between drug knowledge and attitudes, namely, the subject matter to be included as knowledge. The GDIQ used in the present study covered a broad content area ranging from dosages and psychobiological effects to drug slang. Drug knowledge obtained by means of a more sharply focussed questionnaire, for example, one including only content based upon documented facts about the short and long term effects of D.A., may be useful in preventing addiction or severe dependence. Drug experimentation, however, is not likely to be affected in most populations\*. In the

*\*The literature of drug education wherein "factual" information is presented to a DA-susceptible group does not appear to be very effective, partly because facts often appear to be displaced by opinions. 28*

present study, colloquial knowledge of specific drugs was associated with a tendency for attitudes toward the same substances to become more sharply polarized. Thus, comparison of the percentage distributions in Tables I and II indicated that attitudes toward the most well-known drugs (except marijuana), for example, LSD, heroin and Morphine tend to evoke responses indicating strong "unfavorable" attitudes. Quite likely, the result of the highly popularized mixture of fact and opinion about marijuana, attitudes regarding its use tend to be diffuse, with 21% indicating favorable, 36% unfavorable and 38% neutral attitudes. These findings are interpreted as an application of the cognitive dissonance theory<sup>12</sup>, as explained in the introductory comments to this paper. That is to say, for marijuana as contrasted with heroin for example, the consonant and dissonant elements tend to balance resulting in ambivalent attitudes. Clear-cut attitude polarization on the other hand, results from the preponderance of one class of elements over the other, dissonant over consonant in the case of heroin and LSD. The implications for drug education strategy should be obvious.

As expected, high school dropouts tend to have more permissive attitudes toward D.A., a fact that fits the previous findings<sup>2,4</sup> that disproportionately more submariners with a D.A. history have not graduated from high school (Table V). The characteristics of the man's home situation, however, in terms of family stability, the educational level of his parents, his religious background and the prevailing socioeconomic level have no apparent effect on these kinds of attitudes, with the possible exception

that a son of a professional father may have less permissive attitudes toward D.A. (Tables IV, VII and VIII). Although based only upon trends in the data (i.e., on disproportionalities which did not meet the 5% confidence level), the older men with more active duty time, those who are or have been married and those from smaller cities tend to have less permissive attitudes toward D.A. (Tables V, IX, and X). Finally, men from home situations involving some familial history of psychiatric illness tend to have more non-permissive attitudes (Table XI).

All of the above findings, while somewhat tentative, are interpreted as suggestive of one concept which should be taken into account when planning a drug education program aimed at the men in the Submarine Service. Simply stated, not one educational approach, but several approaches are needed to be channeled toward different segments of the submariner population. To an extent, these subgroupings may be based upon the differences in direction and intensity of attitudes toward D.A. as suggested in the above findings. While admittedly only a modest beginning, there does not appear to be any clear precedent for program organization in the D.A. education area, since "at the present time there is no standard or widely accepted model for planning an effective drug-education program. This is an area that urgently needs research, development, and demonstration"<sup>31</sup> (p. 60). The fact that the federal expenditures on "[drug] education, prevention and training" for fiscal '72 was more than 417 million dollars (more than 2M for DOD), suggests that the urgency of this matter has been recognized.<sup>29</sup>

The Attitude Permissiveness Score developed in this study represents only a start toward the development of a method for gauging individual differences in attitude content and intensity as related to the D.A. question. Assuming that a more refined attitude scale could be developed and appropriately validated, what practical purpose would such information serve? One important use of these data has already been mentioned, namely, as a screening technique whereby the submarine candidate with sharply non-prohibitive attitudes toward D.A. can be identified early in his career. A second heretofore unmentioned use of such an attitude scale would be as a "tool" by which the effectiveness of a variety of drug education procedures (films, lectures, etc.) might be assessed. Involving before and after attitude-change indices, this method of evaluating drug education methodology would of necessity require specific statistical techniques already field-tested in a series of attitude-change studies conducted aboard SSBNs.<sup>9</sup> Hopefully, the results of this study reflect some progress in that direction.

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NAVAL SUBMARINE MEDICAL RESEARCH  
LABORATORY DRUG OPINION SURVEY

The following survey was composed to determine the attitudes and knowledge about drug use the typical enlisted submariner candidate has. Since we are seeking general information please do not sign your name or otherwise identify yourself.

Most of the questions simply require you to circle a letter, check an appropriate line or column, or to fill in a blank and although there is no time limit we are asking you to work at a comfortable pace. Be sure, however, to consider each item carefully providing the most appropriate response you can and move on to the next item. Please do not return to items previously completed since this may invalidate the survey. Thank you for your cooperation in advance.

## GENERAL BIOGRAPHICAL INFORMATION

This part of the survey is aimed at collecting general biographical or background information from the men coming into the submarine service. Please complete each item as carefully as you can. Again we do not want you to sign or identify your booklet.

## INSTRUCTIONS

1. Your age \_\_\_\_\_  
age of your brothers \_\_\_\_\_  
age of your sisters \_\_\_\_\_
2. Marital status: single \_\_\_\_\_, Married \_\_\_\_\_, Divorced or separated \_\_\_\_\_.
3. If you have been married a. How long? (years or months) \_\_\_\_\_  
b. Number of living children \_\_\_\_\_
4. During your first 18 years were you a member of any organized religious group?  
Yes \_\_\_ No \_\_\_ If yes, did you attend religious services on a regular basis during that time? Yes \_\_\_ No \_\_\_.
5. What is the highest grade in school you completed \_\_\_\_\_.

## GENERAL BIOGRAPHICAL INFORMATION

6. How long have you been in the Navy? (years or months) \_\_\_\_\_
7. What is or was your father's occupation (circle the one most appropriate)
- A. Professional (lawyer, physician, scientist, engineer, pharmacist, teacher, etc.)
  - B. Semi-professional (artist, musician, entertainer, draftsman, technician, etc.)
  - C. Business (small store, or factory owner, store manager, manager.)
  - D. Clerical worker (typist, secretary, bookkeeper.)
  - E. Skilled worker (machinist, mechanic, electrician, shop-foreman.)
  - F. Semi- or unskilled (miner, truckdriver, watchman, factory worker.)
8. How far did your father go in school? (circle one)
- A. completed grade school
  - B. attended high school
  - C. completed high school
  - D. attended college
  - E. completed college
  - F. received post-graduate education
9. How far did your mother go in school?
- A. completed grade school
  - B. attended high school
  - C. completed high school
  - D. attended college
  - E. completed college
  - F. received post-graduate education
10. Did your mother have a job outside the home?
- A. No
  - B. She had a full-time job most of the time
  - C. She had a full-time job occasionally
  - D. She had a part-time job most of the time
  - E. She had a part-time job occasionally
11. What was your parents average yearly income while you attended high school?
- A. less than \$4000
  - B. From \$4000-\$7000
  - C. From \$7000-\$10000
  - D. From \$10000-\$15000
  - E. From \$15000 and up

## GENERAL BIOGRAPHICAL INFORMATION

12. What size city (number of people) did you live in for the most part?
- 5,000 or less
  - 5,000 - 30,000
  - 30,000 - 100,000
  - 100,000 - million
  - Million or more
13. Which of the following describes the status of your natural parents? (circle all that apply)
- Both alive and living together
  - Married but living apart
  - Legally separated or divorced
  - Father deceased
  - Mother deceased
14. With regard to your home situation would you rate it as
- Good (parents considerate, understanding etc.)
  - Fair
  - Poor
15. What bothers you the most or bugs you the most now? \_\_\_\_\_  
in the past? \_\_\_\_\_
16. Have you ever taken a drug or medication for a long period of time? \_\_\_\_\_ If yes,  
for how long \_\_\_\_\_ and what type or kind of drug? \_\_\_\_\_
17. Has any member of your close family been hospitalized for a psychiatric problem?  
Yes \_\_\_\_\_ No \_\_\_\_\_

## GENERAL DRUG INFORMATION

Additional Instructions: Individuals differ a great deal in terms of the amount and accuracy of the factual information they have about drugs. This part of the survey is an attempt to estimate what a group of submariner volunteers knows about drugs. As before, we are after general information. So please don't sign your name or identify yourself.

Circle the letter corresponding to the best answer.	Percentages <sup>a</sup> (N=58)			
	Correct	Incorrect	Partly <sup>b</sup> Correct	Don't <sup>c</sup> Know
1. What are the three classes of "dangerous" drugs?				
A. Narcotics, pep pills, psychogenics				
B. Uppers, downers, levelers				
C. Stimulants, euphorics, intoxicants				
D. Depressants, stimulants, hallucinogens	43	55	0	2
E. acids, bases, buffers				

<sup>a</sup>Percentages aligned with the most correct response alternative.

<sup>b</sup>Partly correct refers to one of a 2-category correct item checked by respondent.

<sup>c</sup>Don't know was written in to some items by a few respondents.

## GENERAL DRUG INFORMATION

		Percentages			
		Correct	Incorrect	Partly	Don't
				Correct	Know
2.	Cannabis sativa is or is associated with what drug?				
	A. LSD				
	B. Marijuana	75	21	0	4
	C. Mescaline				
	D. Peyote				
	E. Cocaine				
3.	What is drug addiction?				
	A. Physical dependence on a drug with withdrawal symptoms resulting when the drug is not taken	91	9	0	0
	B. Needing more dose to get the same effect as before on a smaller dosage				
	C. The use of an illegal drug(s)				
	D. The state when you get the same effect or "trip" when a drug is taken - this takes much experience				
	E. Being on a 7 day "trip"				
4.	What is "Hashish"?				
	A. A combination of heroin and morphine				
	B. An old term for opium				
	C. A potent marijuana - type drug	67	33	0	0
	D. A female drug user				
	E. A slang term for a type of barbiturate				
5.	What is "speed"?				
	A. A powerful type of opiate				
	B. An amphetamine - Benzedrine or Methedrine	48	52	0	0
	C. A barbiturate - Red devis or Seconal				
	D. Acid				
	E. STP				
6.	What are the dangers of "mainlining" - injecting into the vein?				
	A. Sterility, V.D., death				
	B. Sexual inadequacy				
	C. Getting more "bummers" or bad trips				
	D. Infection, hepatitis, death	93	7	0	0
	E. Paralysis				
7.	What does the term tolerance mean as it relates to drugs and their use?				
	A. Physical dependence with withdrawal symptoms resulting when taken off the drug				

GENERAL DRUG INFORMATION		Percentages			
		Correct	Incorrect	Partly Correct	Don't Know
B.	Continued use of a drug requires greater dosages for the same effects to be reached	48	52	0	0
C.	Being able to administer the drug intravenously				
D.	Being permissive in the use of drugs				
E.	Being able to withdraw without getting symptoms				
8.	What is the correct order of Hallucinogenic potency (most potent hallucinogenic substances listed first)?				
A.	Mescaline, LSD, hashish STP				
B.	Hashish, LSD, marijuana, STP, alcohol				
C.	LSD, mescaline, hashish, marijuana	56	10	0	34
D.	LSD, hashish, mescaline, marijuana, STP				
E.	I don't know				
9.	Are "Bennies" pep pills?				
A.	Yes - they are stimulants such as amphetamines	55	45	0	0
B.	Yes - they are stimulants such as barbiturates				
C.	No - They are goof-balls				
D.	No - they are twisted misshaped joints				
E.	Yes - but they are very hallucinogenic				
10.	Barbiturates (yellow jackets, red birds, red devils) are?				
A.	Ups - get you high				
B.	Downers - calm you	50	48	0	2
C.	Hallucinogens				
D.	Of no medical value				
11.	The common effects of LSD ingestion are?				
A.	Hallucinations				
B.	Tranquillizing effects				
C.	Mood changes - euphoria				
D.	Both A & B				
E.	Both A & C	58	19	21	2
12.	Glue-sniffing can cause death. What are the dangers of glue-sniffing?				
A.	Liver failure				
B.	Kidney failure				
C.	Heart failure or heart attack				
D.	Both A & B	53	40	5	2
E.	Both A & C				
13.	LSD is?				
A.	a stimulant				
B.	a sedative				
C.	a hallucinogen	86	7	0	7

## GENERAL DRUG INFORMATION

		Percentages			
				Partly	Don't
		Correct	Incorrect	Correct	Know
D.	a tranquilizer				
E.	I don't know				
14.	The usual effective dosage of LSD for a person trying it the first time is?				
A.	1 ounce (oz.)				
B.	1/100,000 oz.	21	21	0	58
C.	1/100 oz.				
D.	1/1000 oz.				
E.	I don't know				
15.	An LSD "trip" or "experience" usually lasts about				
A.	2 hours				
B.	4 hours				
C.	12 hours	52	44	2	2
D.	24 hours				
E.	48 hours				
16.	An LSD "trip" or "experience" is commonly known to reoccur several months or more after the initial "experience". This phenomena is called				
A.	flashback	97	0	0	3
B.	habituation				
C.	psychosis				
D.	revelation				
E.	I don't know				
17.	LSD has been stated (with some scientific evidence) to cause.				
A.	Chromosomal abnormalities - changes in genetic material				
B.	Paralysis - loss of movement in a limb				
C.	Insanity - psychotic state like schizophrenia				
D.	Both A & B				
E.	Both A & C	62	5	33	0
18.	What is the most common mechanism of death with narcotic overdose such as heroin overdose).				
A.	Heart failure				
B.	Suicide				
C.	Accidental death (jump off cliff, in front of auto etc.)				
D.	Respiratory failure (stops breathing)	16	58	2	24
E.	I don't know				
19.	Mescaline has as an effect and is known for its				
A.	Tranquillizing (calming) effect				
B.	Downer or depressant effect				
C.	Highly addicting properties				



## GENERAL DRUG INFORMATION

	Percentages		
	Correct	Incorrect	Don't Know
D. Greater potency than LSD			
E. Vivid visual hallucinations	43	54	3
20. Conviction of the use or possession of Marijuana under the Uniform Code of Military Justice may subject offenders to:			
A. Captain's mast			
B. Dishonorable discharge and 5 year confinement	22	45	33
C. Dishonorable discharge, 5 years at hard labor, loss of all pay and allowances, and reduction to lowest pay grade			
D. Dishonorable discharge and \$10,000 fine			
E. I don't know			

## DRUG OPINION SURVEY

## Instructions:

So far we have asked for rather specific drug information about a relatively few types of drugs. We would like now to find in a general way how familiar submarine candidates are with a variety of drugs. Also, we are asking for your opinions regarding the use and control of these drugs. Again, we are interested in general survey information so do not identify your survey booklet. Thank you for your cooperation in advance.

1. Check how much you have heard or know about the nature and/or effects of the following drugs:

	Never Heard of	Heard About Know a Little	Know a Lot
Marijuana	_____	_____	_____
LSD	_____	_____	_____
Mescaline	_____	_____	_____
STP	_____	_____	_____
Amphetamines	_____	_____	_____
Heroin	_____	_____	_____
Opium	_____	_____	_____
Morphine	_____	_____	_____
Barbiturates	_____	_____	_____
Other drugs	_____	_____	_____
(please specify)	_____	_____	_____

## DRUG OPINION SURVEY

2. What has been your principle sources of information concerning these drugs?  
(please rank the ones you check below in order of information obtained.  
Enter 1 for the source that provided the most information, 2 for the next  
most and so on.

Magazines \_\_\_\_\_  
Newspapers \_\_\_\_\_  
Television \_\_\_\_\_  
Navy films \_\_\_\_\_

Navy drug literature \_\_\_\_\_  
Friends \_\_\_\_\_  
Lectures \_\_\_\_\_  
Other (please specify) \_\_\_\_\_

3. Have you ever thought of trying?

	<u>YES</u>	<u>NO</u>
Marijuana	_____	_____
LSD	_____	_____
Mescaline	_____	_____
STP	_____	_____
Amphetamines	_____	_____
Heroin	_____	_____
Opium	_____	_____
Morphine	_____	_____
Barbiturates	_____	_____
Other (please specify)	_____	_____

4. Have you ever tried?

	<u>YES</u>	<u>NO</u>
Marijuana	_____	_____
LSD	_____	_____
Mescaline	_____	_____
STP	_____	_____
Amphetamines	_____	_____
Heroin	_____	_____
Opium	_____	_____
Morphine	_____	_____
Barbiturates	_____	_____
Other (Please specify)	_____	_____

5. If you have ever taken any of these drugs was it: (place drug taken in proper category).

(a) Before joining the Navy \_\_\_\_\_  
(b) While in the Navy \_\_\_\_\_  
(c) Both a & b \_\_\_\_\_

## DRUG OPINION SURVEY

6. If you have ever taken any of these drugs did you do so because of
- Curiosity
  - To calm or excite yourself
  - All your friends doing it
  - I don't know why
  - Other (please specify)
7. What percentage of civilian and Navy men between the ages of 16-25 do you believe use:

	<u>% Civilian</u>	<u>% Navy</u>
Marijuana	_____	_____
LSD	_____	_____
Mescaline	_____	_____
STP	_____	_____
Amphetamines	_____	_____
Heroin	_____	_____
Opium	_____	_____
Morphine	_____	_____
Barbiturates	_____	_____
Other (please specify)	_____	_____

8. How would you describe your feelings or attitude about the use of:

	<u>Favorable</u>	<u>Neutral</u>	<u>Unfavorable</u>
Marijuana	_____	_____	_____
LSD	_____	_____	_____
Mescaline	_____	_____	_____
STP	_____	_____	_____
Amphetamines	_____	_____	_____
Heroin	_____	_____	_____
Opium	_____	_____	_____
Morphine	_____	_____	_____
Barbiturates	_____	_____	_____
Other (please specify)	_____	_____	_____

9. Suppose the use of Marijuana was legalized, would you smoke Marijuana?

- No - definitely not
- Maybe
- Yes - absolutely

## DRUG OPINION SURVEY

10. People who smoke marijuana are more likely to try more potent drugs?  
 YES 48% NO 45% No Response 7%
11. All illegal use of drugs is morally wrong? YES 41% NO 53% No R 6%
12. Laws against use of certain drugs are too restrictive? YES 40% NO 53%  
 No R 7%
13. Use of Marijuana should be legalized? YES 17% NO 47% No R 36%
14. Do you think you received sufficient and proper education concerning the drug abuse problem before joining the Navy? YES \_\_\_\_\_ NO \_\_\_\_\_
15. As you know, the Navy distributes literature, shows training films and presents lectures pertaining to drug usage. What do you think of this education program? Please check all that apply and if you have additional comments please write them below.
- |                   |                     |
|-------------------|---------------------|
| Interesting _____ | Sketchy _____       |
| Informative _____ | Adequate _____      |
| Effective _____   | Uninteresting _____ |
16. Space below is for any criticisms or comments you have about the above survey, questions etc.
- BIOGRAPHICAL SECT.    INFORMATION    OPINION
- A. USE FULLNESS
- B. DIFFICULTY
- C. LENGTH
- OTHER CATEGORIES

YOU MAY WRITE COMMENTS BELOW ON THE OVERALL SURVEY

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<p>The overall purpose of this study was to identify some of the major correlates of permissive attitudes toward drug abuse (D.A.). The General Biographical Information Questionnaire (GBIQ), the General Drug Information Questionnaire (GDIQ), and the Drug Opinion Survey (DOS) administered to 58 Navy enlisted candidates for the submarine service provided the source data for the study. Based upon the relationship of the Attitude Permissiveness Score (derived from the DOS) to selected items from the GBIQ and the GDIQ, the major findings were: (1) Those with low GDIQ scores tended to be less permissive; (2) those who have tried or thought of trying drugs had more permissive attitudes; (3) high school dropouts were more permissive but parents' educational level had no relationship to attitudes; (4) stability of the man's home situation, the family composition and birth order similarly were unrelated; but (5) there was some tendency for less permissive attitudes toward D.A. to be found in men whose family had some history of psychiatric illness. Suggestions for planning an effective drug education program for the submarine service as well as consideration of the possibility of using attitude information of this kind to identify D.A.-prone submariner recruits were discussed. The three experimental questionnaires with item frequency distributions for the GDIQ are included as an appendix.</p>		

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